In the Abstract:

Method for fabricating a transistor structure

The invention relates to a method for fabricating a transistor structure, comprising at least a first and a second bipolar transistor having different collector widths.

The invention is distinguished by the fact that all junctions between differently doped regions have a sharp interface. In this case, by way of example, a first collector region 2.1 is suitable for a high-frequency transistor with high limiting frequencies $f_{\rm T}$ and a second collector region 2.2 is suitable for a high-voltage transistor with increased breakdown voltages.

Figure 3c

A method for fabricating a transistor structure with a first and a second bipolar transistor having different collector widths is presented. The method includes providing a semiconductor substrate, introducing a first buried layer of the first bipolar transistor and a second buried layer of the second bipolar transistor into the semiconductor substrate, and producing at least a first collector region having a first collector width on the first buried layer and a second collector region having a second collector width on the second buried layer. A first collector zone having a first thickness is produced on the second buried layer for production of the second collector width. A second collector zone having a second thickness is produced on the first collector zone. At least one insulation region is produced that isolates at least the collector regions from one another.